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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/809,316

03/24/2004

David M. Durham

42P19298

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04/22/2008

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EXAMINER

SHIU, HO T

ART UNIT

PAPER NUMBER

2157

MAIL DATE

DELIVERY MODE

04/22/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/809,316	<b>Applicant(s)</b> DURHAM ET AL.	
	<b>Examiner</b> HO SHIU	<b>Art Unit</b> 2157	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 March, 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-76 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-76 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>26 September 2007, 09 May 2006, 23 August 2004</u> .          | 6) <input type="checkbox"/> Other: _____                          |



## **DETAILED ACTION**

1. Claims 1-76 are pending in this application.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 11, 30, 49, and 68 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 11, 30, 49, and 68 recite “emergency runtime services” as related to manageability features. It is not clear what the emergency runtime services are. For examination purposes, undertaking emergency runtime services will be treated as critical or fatal errors.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**6. Claims 1-16, 18-35, 37-54, 56-73, and 75-76 are rejected under 35**

**U.S.C. 103(a) as being unpatentable over Gibbons et al. (US Patent # 6,243,809 B1, hereinafter Gibbons) in view of Rakavy et al. (US Patent # 5,978,912 B2, hereinafter Rakavy). Gibbons and Rakavy are cited in the Information Disclosure Statement filed by applicant on 05/09/2006.**

7. With respect to claim 1, Gibbons discloses an apparatus comprising: an embedded firmware agent (fig. 6, col. 9, lines 34-37) having instructions that cause the embedded firmware agent to selectively operate in a management mode (col. 9, lines 37-43) during which a host operating system relinquishes control of a host system in which the embedded firmware agent resides (col. 2, lines 14-30); an embedded controller agent (fig. 7, col. 9, lines 44-52) that operates independently of the host operating system (col. 2, lines 14-30) and selectively invokes the management mode (col. 9, lines 45-52), and a bi-directional agent bus coupled between the embedded firmware agent and the embedded controller agent to transmit messages between the embedded firmware agent and the embedded controller agent (fig. 6, col. 9, lines 34-37, fig. 7, col. 9, lines 44-52, fig. 2, col. 9, lines 36-52, in the specification [0019] a bi-directional agent bus can be any bi-directional communication mechanism. The embedded firmware agent of Gibbons (fig. 6, col. 9, lines 34-37) and the embedded controller agent (fig. 7, col. 9, lines 44-52) communicate via memory locations (fig. 2

(34), col. 9, lines 36-52) which is considered a bi-directional communication mechanism).

Gibbons does not disclose the embedded controller agent having a network interface to allow the embedded controller agent to communicate over a network independently of the host operating system.

In the same field of endeavor, Rakavy discloses the embedded controller agent having a network interface to allow the embedded controller agent to communicate over a network independently of the host operating system (col. 1, lines 7-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Gibbons with the teachings of Rakavy in order to enhance a computer's BIOS to accommodate remote access and maintenance without the aid of the operating system executing on the computer.

8. With respect to claim 20, Gibbons discloses, a method comprising: invoking a management mode (col. 9, lines 45-52) in a host system in which a host operating system temporarily relinquishes control of the host system (col. 2, lines 25-33), and servicing requests from the embedded controller agent during the management mode with an embedded firmware agent by communicating with the embedded controller agent over a bidirectional agent bus (fig. 6, col. 9, lines 34-37, fig. 7, col. 9, lines 44-52, fig. 2, col. 9, lines 36-52, in the specification [0019] a bi-directional agent bus can be any bi-directional communication mechanism. The embedded firmware agent of Gibbons (fig. 6, col. 9, lines 34-37) and the embedded controller agent (fig. 7, col. 9,

lines 44-52) communicate via memory locations (fig. 2 (34), col. 9, lines 36-52) which is considered a bi-directional communication mechanism).

Gibbons does not disclose with an embedded controller agent having a network connection that operates independently of the host operating system.

In the same field of endeavor, Rakavy discloses an embedded controller agent having a network connection that operates independently of the host operating system (col. 1, lines 7-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Gibbons with the teachings of Rakavy in order to enhance a computer's BIOS to accommodate remote access and maintenance without the aid of the operating system executing on the computer.

9. With respect to claim 39, Gibbons discloses an article comprising a computer-readable medium having stored thereon instructions that, when executed, cause one or more processing elements to: invoke a management mode (col. 9, lines 45-52) in a host system in which a host operating system temporarily relinquishes control of the host system (col. 2, lines 25-33); and service requests from the embedded controller agent during the management mode with an embedded firmware agent by communicating with the embedded controller agent over a bi-directional agent bus (fig. 6, col. 9, lines 34-37, fig. 7, col. 9, lines 44-52, fig. 2, col. 9, lines 36-52, in the specification [0019] a bi-directional agent bus can be any bi-directional communication mechanism. The embedded firmware agent of Gibbons (fig. 6, col. 9, lines 34-37) and the embedded

controller agent (fig. 7, col. 9, lines 44-52) communicate via memory locations (fig. 2 (34), col. 9, lines 36-52) which is considered a bi-directional communication mechanism).

Gibbons does not disclose an embedded controller agent having a network connection that operates independently of the host operating system.

In the same field of endeavor, Rakavy discloses an embedded controller agent having a network connection that operates independently of the host operating system (col. 1, lines 7-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Gibbons with the teachings of Rakavy in order to enhance a computer's BIOS to accommodate remote access and maintenance without the aid of the operating system executing on the computer.

10. With respect to claim 58, Gibbons discloses a system comprising: a bus (col. 3, lines 47-50); a digital signal processor coupled with the bus (col. 4, lines 14-25, fig. 6, col. 9, lines 34-37); an embedded firmware agent coupled with the bus having instructions that cause the embedded firmware agent to selectively operate in a management mode (col. 9, lines 37-43) during which a host operating system relinquishes control of a host system in which the embedded firmware agent resides (col. 2, lines 25-33); an embedded controller agent (fig. 7, col. 9, lines 44-52) that operates independently of the host operating system (col. 2, lines 14-30) and selectively invokes the management mode (fig. 7, col. 9, lines 44-52); and a bi-directional agent

bus coupled between the embedded firmware agent and the embedded controller agent to transmit messages between the embedded firmware agent and the embedded controller agent (fig. 6, col. 9, lines 34-37, fig. 7, col. 9, lines 44-52, fig. 2, col. 9, lines 36-52, in the specification [0019] a bi-directional agent bus can be any bi-directional communication mechanism. The embedded firmware agent of Gibbons (fig. 6, col. 9, lines 34-37) and the embedded controller agent (fig. 7, col. 9, lines 44-52) communicate via memory locations (fig. 2 (34), col. 9, lines 36-52) which is considered a bi-directional communication mechanism).

Gibbons does not disclose the embedded controller agent having a network interface to allow the embedded controller agent to communicate over a network independently of the host operating system.

In the same field of endeavor, Rakavy discloses the embedded controller agent having a network interface to allow the embedded controller agent to communicate over a network independently of the host operating system (col. 1, lines 7-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Gibbons with the teachings of Rakavy in order to enhance a computer's BIOS to accommodate remote access and maintenance without the aid of the operating system executing on the computer.

11. With respect to claims 2, 21, 40 and 59, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses a trusted module coupled

with the embedded firmware agent and the embedded controller agent, the trusted module to perform cryptographic operations to support operations by the embedded controller agent (col. 9, lines 41-60).

12. With respect to claims 3, 22, 41, and 60, Gibbons discloses the embedded controller agent asserts a management interrupt signal to invoke the management mode (col. 9, lines 45-52, in the background of the application [0003], a system management interrupt is also known as SMI).

13. With respect to claims 4, 23, 42, and 61, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses the embedded controller agent and the embedded firmware agent interact to provide manageability features to the host system (col. 10, lines 54-65).

14. With respect to claims 5, 24, 43, and 62, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses wherein the manageability features are provided prior to the host operating system being loaded (col. 17, lines 8-18, col. 3, lines 16-25, this is done prior to boot strapping).

15. With respect to claims 6, 25, 44, and 63, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses wherein the manageability features are provided after the host operating system has been loaded

(col. 11, lines 6-19, this is done while real-mode operating systems are running).

16. With respect to claims 7, 26, 45, and 64, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses the manageability features are provided concurrently with loading of the host operating system (col. 6, lines 60-65).

17. With respect to claims 8, 27, 46, and 65, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses the manageability features comprise host operating system independent update of a flash memory device via the embedded controller agent (col. 7, lines 19-25, copies the network enhanced bios).

18. With respect to claims 9, 28, 47, and 66, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses the manageability features comprise monitoring of host functionality and reporting to a remote device via the embedded controller agent (col. 9, lines 20-39, col. 15, lines 60-67, col. 16, lines 1-4).

19. With respect to claims 10, 29, 48, and 67, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses the manageability features comprise providing boot services to the host system via the embedded

controller agent (col. 10, lines 60-65).

20. With respect to claims 11, 30, 49, and 68, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses the manageability features comprise providing emergency runtime services via the embedded controller agent (col. 9, lines 33-39, col. 10, lines 35-42).

21. With respect to claims 12, 31, 50, and 69, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses the embedded controller agent and the embedded firmware agent interact to provide security features to the host system (col. 9, lines 41-60, security features are enhanced by the bios).

22. With respect to claims 13, 32, 51, and 70, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses the security features are provided prior to the host operating system being loaded (col. 7, lines 8-18, col. 3, lines 16-25, this is done prior to boot strapping).

23. With respect to claims 14, 33, 52, and 71, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses the security features are provided after the host operating system has been loaded (col. 10, lines 6-19, this is done while real-mode operating systems are running).

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24. With respect to claims 15, 34, 53, and 72, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses wherein the security features are provided concurrently with loading of the host operating system (col. 6, lines 60-65).

25. With respect to claims 16, 35, 54, and 73, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses wherein the security features comprise performing verification of the host system (col. 9, lines 45-49) and selectively reporting results to a remote device via the embedded controller agent (col. 9, lines 45-47).

26. With respect to claims 18, 37, 56, and 75, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses wherein the security features comprise providing authentication services for the host system via the embedded controller agent (col. 9, lines 40-45).

27. With respect to claims 19, 38, 57, and 76, it is rejected for the same reasons as claims 1, 20, 39, and 58 above. In addition, Rakavy discloses wherein the security features comprise providing support for mutual authentication of a network communication session (col. 9, lines 50-59).

**28. Claims 17, 36, 55, and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gibbons in view of Rakavy et al. as applied to claims 1, 12, 20, 31, 39, 50, 58, and 69 in further view of Dennis (US Patent # 6,792,556 B1, hereinafter Dennis).**

29. With respect to claims 17, 36, 55, and 74, Gibbons and Rakavy do not disclose wherein the security features comprise performing virus recovery operations via the embedded controller agent.

In the same field of endeavor, Dennis discloses wherein the security features comprise performing virus recovery operations via the embedded controller agent (col. 3, lines 47-59).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Gibbons and Rakavy with the teachings of Dennis in order to restore the boot record if it is a mismatch or if a virus is detected.

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HO SHIU whose telephone number is (571)270-3810. The examiner can normally be reached on Mon-Thur (8:30am - 4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HTS

04/07/2008

/Ario Etienne/

Supervisory Patent Examiner, Art Unit 2157